

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* STEPHEN P. DeLISLE and BENJAMIN J. MALOY

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Appeal 2006-2550  
Application 10/750,710  
Technology Center 3700

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Decided: April 11, 2007

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Before TERRY J. OWENS, JENNIFER D. BAHR, and STUART S. LEVY,  
*Administrative Patent Judges.*

BAHR, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Stephen P. DeLisle et al. (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-6, 8-10, and 12-43. We have jurisdiction over this appeal under 35 U.S.C. § 6.

Appellants invented a golf tee. Independent claims 1 and 43 are representative of Appellants' claimed invention and read as follows:

1. A golf tee, comprising:  
an elongate shaft having opposed upper and lower ends, the lower end configured to be inserted into an underlying surface; and  
a support cup that is configured to support a golf ball from beneath, the support cup merging with the shaft, the support cup having a base portion having a concave upper surface and further including at least three arcuate support prongs projecting upwardly from the base portion, the support prongs defining a discontinuous annulus about the periphery of the support cup; wherein the base portion upper surface has a radius of curvature of less than 0.6 inch, such that a golf ball resting on the support prongs does not contact the base portion upper surface.

43. A golf tee, comprising:  
an elongate shaft having opposed upper and lower ends, the lower end configured to be inserted into an underlying surface; and  
a support cup that is configured to support a golf ball from beneath, the support cup merging with the shaft, the support cup having a base portion and further including at least three arcuate support prongs projecting upwardly from the base portion, each of the support prongs having a convex contact surface and being of a secant length such that the total contact area between the contact surfaces and a golf ball resting on the contact surfaces is between about 0.0036 and 0.0045 in<sup>2</sup>.

The Examiner relies upon the following as evidence of unpatentability:

Clausing	US 1,644,979	Oct. 11, 1927
Hodges	US 1,645,001	Oct. 11, 1927
Seager	US 2,455,705	Dec. 07, 1948
Dawson	US 2,693,358	Nov. 02, 1954
Tan	US 6,710,135	Mar. 23, 2004 <sup>1</sup>

Appellants seek review of the Examiner's rejections under 35 U.S.C. § 103(a) of claims 1-4, 8-10, 12, and 13 as unpatentable over Hodges in view of Clausing, claim 5 as unpatentable over Hodges in view of Clausing and Dawson, claim 6 as unpatentable over Hodges in view of Clausing and Seager, claim 14 as unpatentable over Hodges in view of Clausing and Tan, claims 15-19, 22-27, 29-33, 36-40, 42, and 43 as unpatentable over Hodges in view of Dawson, claims 20 and 34 as unpatentable over Hodges in view of Dawson and Seager, claims 21 and 35 as unpatentable over Hodges in view of Dawson and Clausing, and claims 28 and 41 as unpatentable over Hodges in view of Dawson and Tan.

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<sup>1</sup> Appellants have not raised the issue of whether the Tan patent is available as prior art against Appellants' claims under 35 U.S.C. § 102. In any event, even assuming the Tan patent is not available as prior art under 35 U.S.C. § 102(e), both the U.S. publication (US 2003/0013821 A1, published January 16, 2003) and the international publication (WO 02/12395, published February 14, 2002) of the application from which the Tan patent issued occurred prior to the January 2, 2004 filing date of the instant application and are thus available as prior art under 35 U.S.C. § 102(a). Accordingly, any error in applying the Tan patent rather than either of the two prior publications of the application from which the Tan patent issued is harmless.

The Examiner provides reasoning in support of the rejections in the Answer (mailed March 17, 2006). Appellants present opposing arguments in the Brief (filed February 8, 2006).

## THE ISSUES

Appellants contend that claim 1 is not unpatentable over Hodges in view of Clausing because the teaching of Hodges of notching the head, thereby forming spaced sections 15 between the notches for fitting into dimples or recesses in the surface of the ball, in order to seat the ball more securely in the saucer shaped head of the tee, would have led one of ordinary skill in the art away from the combination of Hodges and Clausing proposed by the Examiner (Br. 7-8). Appellants do not separately argue the rejections of dependent claims 2-6, 8-10, and 12-14 (Br. 8), all of which rejections are grounded at least in part on the combination of Hodges and Clausing contested by Appellants. Accordingly, the rejections of claims 2-6, 8-10, and 12-14 stand or fall with the rejection of claim 1. *See In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Wood*, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978). *See also In re Nielson*, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987).

Appellants contend that the rejections of independent claims 15, 29, and 43, and the claims depending therefrom, are improper because Hodges' teaching of providing a more secure seating of the ball in the saucer shaped head of the tee by forming notches in the edges of the head, leaving spaced sections 15 for fitting into the dimples or recesses in the surface of the ball, would have led one of ordinary skill in the art away from the modification proposed by the Examiner (Br. 9). As Appellant has not separately argued

the rejection of claims 15-19, 22-27, 29-33, 36-40, and 42 as unpatentable over Hodges in view of Dawson apart from the like rejection of claim 43, in accordance with 37 C.F.R. § 41.37(c)(1)(vii), we select claim 43 as the representative claim to decide the appeal of this rejection, with claims 15-19, 22-27, 29-33, 36-40, and 42 standing or falling with claim 43. Further, as Appellants have not separately argued the rejections of claims 20, 21, 28, 34, 35, and 41 separately from the rejection of claim 43 as unpatentable over Hodges in view of Dawson, the rejections of these claims will also stand or fall with the rejection of claim 43. *See Nielson*, 816 F.2d at 1572, 2 USPQ2d at 1528.

In light of Appellants' contentions, the issues before us are:

1. with respect to the rejection of claim 1, whether Hodges' teaching to form spaced notches in the edge of the head of the tee in order to seat the ball more securely in the head would have led one of ordinary skill in the art away from forming the upper face 12 of Hodges' golf tee head with a radius of curvature such that the golf ball only contacts the prongs (spaced edge sections 15) in order to minimize resistance to the golf ball at the moment of departure from the tee, in view of the teachings of Clausing, as proposed by the Examiner (Answer 3) and
2. with respect to the rejection of claim 43, whether Hodges' teaching to form spaced notches in the edge of the head of the tee in order to seat the ball more securely would have led one of ordinary skill in the art away from forming the prongs (spaced edge sections 15) of Hodges with a convex contact surface in order to better support a teed golf ball, in view of the teaching of Dawson, as proposed by the Examiner (Answer 4).

### FINDINGS OF FACT

FF1. Appellants do not dispute that, if Hodges is modified as proposed by the Examiner in view of Clausing, the subject matter of claim 1 will result.

FF2. Appellants do not dispute that, if Hodges is modified as proposed by the Examiner in view of Dawson, the subject matter of claim 43 will result.

FF3. Hodges discloses a golf tee comprising a shank 10 and a saucer shaped head 11. The head 11 has a concave upper face 12 terminating at a peripheral ring 13.

FF4. Hodges (Hodges 1:100-108) teaches that:

In order that the ball may be more securely seated in the saucer shaped head of the tee, the edges of the head may be notched or recessed as indicated at 14 causing spaced sections 15 in the edge of the rim to engage with the surface of the ball, these edge portions fitting into the dimples or the recesses in the surface of the ball.

FF5. Clausing discloses a golf tee having a body member 6 provided on its upper end with a plurality of supporting edges for properly positioning and supporting a golf ball while offering a minimum of resistance to the flight of the ball at the moment of departure from the tee (Clausing 1:44-50). The supporting edges are formed as quarter pyramids 7, with V-shaped cutaway areas 10 between the quarter pyramids 7 so as to minimize resistance to the flight of the ball, as there is no continuous rim to impede the flight of the ball (Clausing 1:50-65).

FF6. The Examiner contends that it would have been obvious to one of ordinary skill in the art “to form the golf tee of Hodges with a radius of

curvature for the support surface such that the golf ball only contacts the prongs [i.e., spaced sections or edge portions 15] in order to minimize the resistance to the golf ball at the moment of departure from the tee” (Answer 3).

FF7. Dawson teaches that a rounded annular bead 15 (Fig. 3a) provides a better seat for a golf ball than the squared-edge seat 5 (Figs. 1-3) (Dawson, col. 2, ll. 52-54).

FF8. The Examiner contends that it would have been obvious to one of ordinary skill in the art “to form the prongs [i.e., spaced sections or edge portions 15] of Hodges with a convex contact surface in order to better support a teed golf ball” (Answer 4, 5).

#### PRINCIPLES OF LAW

A reference may be said to teach away when a person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be productive of the result sought by the applicant.

*In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).

To establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by Appellants. The motivation, suggestion or teaching may come

explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. *See In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000).

Limitations not appearing in the claims cannot be relied upon for patentability. *In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982).

## ANALYSIS

Hodges' teaching of providing notches 14 and spaced sections 15 at the edge of head 11 of the tee to more securely seat the ball (FF4) does not specifically address the radius of curvature of the concave upper face 12. Further, Hodges gives absolutely no indication that maximizing contact surface area between the ball and the upper face of the head 11 of the tee either is desirable or contributes to more secure seating of the ball. In fact, one skilled in the art would probably infer from Hodges' teaching that the radius of curvature of the concave upper face 12 is smaller than that of a conventional golf ball, so that the spaced sections or edge portions 15 will be oriented so as to extend into the dimples, rather than along the outer surface of the ball. The modification proposed by the Examiner (FF6), therefore, is not at odds with Hodges' objective to more securely seat the ball in the saucer shaped head 11 of the tee and contributes to achieving another



objective, recognized by Clausing, of minimizing resistance to the flight of the ball at the moment of departure (FF5).

To the extent that Appellants are arguing (Br. 8) that the subject matter of claim 1 is not suggested by the combination of Hodges and Clausing because Hodges discloses an arrangement wherein the spaced sections or edge portions 15 fit into the dimples, rather than across the dimples, as disclosed by Appellants (Specification 4:25 to 5:2), this argument is not commensurate with the scope of claim 1, which contains no limitation as to the secant length of the prongs or their interaction with the outer skin of the golf ball. Appellants therefore cannot rely on such distinctions for patentability.

In light of the above, Appellants have not demonstrated that the Examiner erred in rejecting claim 1 as unpatentable over Hodges in view of Clausing. The rejection of claim 1, as well as dependent claims 2-4, 8-10, 12, and 13 standing or falling with claim 1, is sustained. The rejections of claim 5 as unpatentable over Hodges in view of Clausing and Dawson, claim 6 as unpatentable over Hodges in view of Clausing and Seager, and claim 14 as unpatentable over Hodges in view of Clausing and Tan, which Appellants have not argued separately from the rejection of claim 1, are likewise sustained.

With respect to the rejection of claim 43 as unpatentable over Hodges in view of Dawson, Appellants argue that the purpose of the spaced sections or edge portions of Hodges' tee is to increase, rather than decrease, interaction between the tee and ball (Br. 9). To the extent that the object of Hodges' notches 14 causing spaced sections 15 (FF4) is to increase interaction between the tee and ball, such increased interaction is effected by

fitting the spaced sections or edge portions 15 into the dimples or recesses in the surface of the ball. Provision of a rounded or convex contact surface on Hodges' spaced sections or edge portions 15 to provide a better seat for the golf ball as taught by Dawson (FF7), as proposed by the Examiner, would not, in and of itself, negate the effect of the spaced sections or edge portions fitting into the dimples or recesses in the surface of the ball and would afford the additional benefit of providing a better seat for the ball. Accordingly, we do not agree with Appellants that modifying the Hodges tee to provide convex contact surfaces as disclosed by Dawson "would destroy the purpose of the edge portions of the Hodges tee" (Br. 9).

In light of the above, Appellants have not demonstrated that the Examiner erred in rejecting claim 43 as unpatentable over Hodges in view of Dawson. Accordingly, the rejection of claim 43, as well as claims 15-19, 22-27, 29-33, 36-40, and 42 standing or falling with claim 43, as unpatentable over Hodges in view of Dawson, and the rejections of claims 20 and 34 as unpatentable over Hodges in view of Dawson and Seager, claims 21 and 35 as unpatentable over Hodges in view of Dawson and Clausing, and claims 28 and 41 as unpatentable over Hodges in view of Dawson and Tan, which Appellants have not argued separately from the rejection of claim 43, are sustained.

SUMMARY

The decision of the Examiner to reject claims 1-6, 8-10, and 12-43 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

vsh:

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